BORANG PENGESAHAN STATUS TESIS

JUDUL: FLOOR COVERING ANALYZER

SESI PENGAJIAN: 1 - 2005/2006

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(HURUF BESAR)

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FLOOR COVERING ANALYZER

KONG MEI YONG

This report is submitted in partial fulfillment of the requirements for the Bachelor of Computer Science (Software Development)

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
KOLEJ UNIVERSITI TEKNIKAL KEBANGSAAN MALAYSIA
2005

DECLARATION

I hereby declare that this project report entitled

FLOOR COVERING ANALYZER

is written by me and is my own effort and that no par has been plagiarized without citations.

STUDENT : _____ Date : 21/11/05

(KONG MEI YONG)

SUPERVISOR : _____ Date: 21/11/05

(PN. ROSLEEN BT ABD SAMAD)

DEDICATION

To my beloved family members and my supervisor.

ACKNOWLEDGEMENTS

If a book is a labor of love, then there must be a "coach" to help one through the process. In my case, I am lucky enough to have variety of coaches who have been with me every step of the way to complete this project. First, I would like to offer a special note of thanks to my supervisor, Pn. Rosleen bt Abd Samad for her valuable comments, encouragement, and patient. It is a pleasure under her supervision.

Besides, I would like to thank Mr. Teo, who is a person in-charge of a Kinora Flooring Sdn Bhd for his valuable information, opinions and work experiences which let me know more about the flooring business.

In addition, thanks also extended to all of my friends and family for their support and for being the inspiration for my efforts.

ABSTRACT

The Floor Covering Analyzer is developed specially for the Kinora Flooring Sdn Bhd. Currently, this company handles flooring projects without any support system. This brings to the problems such as the information searching and updating problems. Besides, the calculations for estimate the needed stock for the flooring project will consume some times and energy. The Floor Covering Analyzer is designed to improve the current system. Stock estimation with the report generation is specially designed for the user as a reference to determine whether there is a need to order new stock for the flooring projects or not. The system facilitates user to manage customer quotation and laminate flooring collections in a more effective way. The system focuses on the laminate flooring project for foyer, living room, bed room and kitchen. The Object-Oriented Analysis and Design methodology with the Unified Modelling Language is used to carry out the project analysis and design. The system is developed by using the Microsoft Visual Studio .Net 2003 and Crystal Reports 10. Microsoft SQL Server 2000 is used to store the system's data.

ABSTRAK

Floor Covering Analyzer dibangunkan khas untuk Kinora Flooring Sdn Bhd. Syarikat ini meguruskan projek *flooring* tanpa bantuan sistem. Ini bawa kepada masalah seperti masalah carian maklumat dan kemaskini maklumat. Di samping itu, kiraan-kiraan untuk menjangka stok yang diperlukan untuk projek *flooring* juga menelan masa dan tenaga. *Floor Covering Analyzer* direka untuk memperbaiki sistem semasa. Jangkaan stok dengan laporan direka sebagai satu rujukan untuk pengguna menentukan sama ada perlu memesan stok baru untuk projek *flooring* atau tidak. Sistem membantu pengguna menguruskan projek *flooring* dan koleksi untuk *laminate flooring* dengan cara yang lebih berkesan. Sistem ini fokus kepada projek *laminate flooring* untuk *foyer*, bilik tamu, bilik tidur dan dapur. Metodologi *Object-Oriented Analysis and Design* dengan *Unified Modelling Language* digunakan untuk menjalankan analisis dan rekabentuk untuk projek. Sistem ini dibangunkan dengan menggunakan *Microsoft Visual Studio .Net 2003* dan *Crystal Reports 10*. *Microsoft SQL Server 2000* digunakan untuk menyimpan data sistem.

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NO	ABBREVIATION	NAME
1.	3D CCAD	3D Construction CAD
2.	CIC	Computer Integrated Construction
3.	DVB	Drawing Visual Basic
4.	EOQ	Economic Order Quantity
5.	ERD	Entity Relationship Diagram
6.	FCA	Floor Covering Analyzer
7.	GUI	Graphical User Interface
8.	IC	Identity Card
9.	JIT	Just-In-Time
10.	MRP	Material Requirements Planning
11.	MSSQL	Microsoft SQL
12.	OOA	Object-Oriented Analysis
13.	OOAD	Object-Oriented Analysis and Design
14.	OOD	Object-Oriented Design
15.	OS	Operating System
16.	PC	Personal Computer
17.	Sdn Bhd	Sendirian Berhad
18.	SCM	Software Configuration Management
19.	UML	Unified Modelling Language
20.	VB	Visual Basic
21.	VBA	Visual Basic for Applications

22.	**VBA**	**Visual Basic for Applications**
23.	**VB.NET**	**Visual Basic .NET**
24.	**VSS**	**Visual SourceSafe**

CHAPTER I

INTRODUCTION

1.1 Project Background

Flooring is truly fashion underfoot and can add character and charm to any interior setting. There are variety types of flooring for today's home. For any room in the home, homeowners have an extensive line of tile flooring, vinyl flooring and laminate products. Laminate flooring has become an extremely popular choice with many homeowners over recent years.

Kinora Flooring Sdn Bhd is a flooring company that specialized in laminated flooring. Currently, this company handles the flooring project without any system support. A lot of time and energy are needed to handle a flooring project. Besides managing the project information, a lot of calculations are needed to be done.

Thus, the Floor Covering Analyzer (FCA) is designed and developed specially for the Kinora's staff to manage the flooring project in a more systematically way.

1.2 Problem Statements

Human is not perfect. The chances of making mistakes are quite high, especially when doing the calculation and record the information.

As stated previously, Kinora's staff manages the flooring project without using any computerized system. The filing system that used to handle the project information has leads to several problems such as the information lost or damage, information updating problem and quotation searching problem.

Besides, a lot of calculations are needed to be done for the ordered flooring projects. Other than that, the staff also needs to know whether there is a need to add or order the laminate flooring stock based on the customer order. These works may make people headache.

Due to the stated problems, the FCA is developed for the Kinora Flooring Sdn Bhd with the objective to facilitate the Kinora's staff in handling the laminate flooring project and decrease his or her works in calculations for the stock ordering.

1.3 Objective

Objectives are specific in terms of task, results and responsibility and can be viewed as landmarks or milestones that mark progress on journey to the success of a project. The objectives for developing the FCA are as the following:

i. To deliver the stock estimation service.

The system provides the stock estimation to the user. From the system estimation, user can know how many stock is needed for the ordered flooring projects and from there, they can decide whether need to order certain stocks or not according to the current stock.

ii. To support the quotation management.

The system facilitates user to keep the customers' quotations systematically. The customer order based on the quotation will be saved into the database as a record and for the stock estimation purpose.

iii. To provide capabilities for managing the laminate flooring collections.

Each type of laminate flooring has its own code, unit price, and other characteristics. With the functions provided by the system, user can manage the laminate flooring collections more systematically.

iv. To provide the snapshot for view the effect when a kind of laminate flooring is applied to a room.

Snapshot is provided for the user to view the effect when a kind of laminate flooring is applied to a room.

1.4 Scopes

The project scopes are clearly defined for the development of the FCA.

i. Project Deliverables

The project will deliver a standalone system with the functionalities as the following:

a. Stock Estimation

This function is designed for estimate the needed stocks for the ordered flooring project. Based on a date selected by the user, a report will be generated as the estimation result.

b. Quotation Management

The system facilitates user to add, edit, delete and print the quotation. Besides, the sales order based on the quotation will be kept as a record in the database and can be printed.

c. Laminate Flooring Collections Management

Kinora Sdn Bhd has many collections of laminate flooring that used for the flooring project. The system provides functionalities such as add, edit, and delete the laminate flooring information function for the user to manage the collections systematically.

d. Snapshot for Laminated Flooring

This system provides snapshot that shows the effect when a kind of laminate flooring is applied to a room.

ii. Target Users

The target user of this system is the Kinora's staff.

iii. Target Area

The system focuses on the laminate flooring project for the foyer, living room, bed room and kitchen.

1.5 Project Significance

This system is specially designed for Kinora Flooring Sdn Bhd. There are several factors that motivate the development of the FCA.

First, the FCA acts as a support system that makes the staff works easier by providing the stock estimation. All the estimation formulas are set in the system. The user can easily know the total stock that needed for the customers' orders by referring to the estimation result that generated as a report by the system.

Besides, this computerized system facilitates the Kinora's staff to prepare the quotation and sales order for the customer in a simple way. Information for the quotation and customer order will be stored properly in the database.

Other than that, this system provides functionalities that allow user to manage the laminate flooring information in an easier way.

1.6 Expected Output

The expected output of the project is a standalone system that provides three main functions. There are including the stock estimation function, quotation management function and laminate flooring collections management function.

1.7 Conclusion

The FCA is developed specially for the Kinora Flooring Sdn Bhd. It provides the stock estimation function that facilitates the user to estimate the stocks needed for the flooring project. Besides, this system allows user to manage the customers' quotations and laminate flooring collections systematically. This system may decrease or make the user works easier. However, the estimation offered by the system should not be blindly accepted.

The literature review and project methodology will be discussed in the chapter II.

CHAPTER II

LITERATURE REVIEW AND PROJECT METHODOLOGY

2.1 Introduction

The literature review is conducted to make use of other people work and gains a better knowledge about the system to be developed. Research and analysis of the existing or similar system that related to the project will be described here.

The project methodology refers to the utilization of technique, tools and approaches used in to achieve the project objective. A methodology or approach is selected to complete the project successfully.

2.2 Fact and Finding

The literature review brings up to date information, knowledge and ideas, including contrasting perspectives and viewpoints that have been established on a topic. Literature review is conducted to identify gaps in current knowledge, carry on from where others have already reached, and identify other people working in the same and related fields. Besides, it is done for increases knowledge and identifies methods that could be relevant to the project.